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ABSTRACT

This report describes the growth of acquired immunodeficiency syndrome (AIDS) education programs and identifies areas needing improvement. The purpose of the extensive survey was to provide information on the program of school human immunodeficiency virus (HIV) education efforts led by the Centers for Disease Control (CDC). Results revealed that CDC-led nationwide education efforts are not yet commensurate with the epidemic's potential for disaster. While two-thirds of the nation's public school districts provide formalized HIV education, it is not offered at every grade level, especially the upper grades, where the probability of sexual activity is highest. Most CDC-funded education departments do not collect from students the essential planning and monitoring information needed to set program priorities and evaluate successes. This is due to a lack of staff and difficulty in obtaining community support to collect sensitive sexual and drug-use data. Although the majority of HIV teachers did receive training, it was often insufficient, and one of five HIV teachers received no training at all. CDC provides no guidance to districts on the appropriate length of such teacher training. Recommendations are made for improving the programs. Information in the appendixes includes: excerpts from CDC's guidelines, CDC's suggested questions for students, and topics covered in inservice training in CDC-funded districts and nationwide. Four tables and 4 figures are included. (JD)

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United States General Accounting Office

GAO

Report to the Chairman, Committee on Governmental Affairs, U.S. Senate

May 1990

AIDS EDUCATION

Public School Programs Require More Student Information and Teacher Training

ED323183

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United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-238881

May 1, 1990

The Honorable John Glenn
Chairman, Committee on
Governmental Affairs
United States Senate

Dear Mr. Chairman:

This report responds to your request and subsequent discussions with your staff concerning certain programs to prevent the spread of the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS).[1] The programs at issue are managed by the Centers for Disease Control (CDC), an agency in the Department of Health and Human Services. As part of our ongoing review of AIDS education and prevention efforts, you asked us to obtain information on CDC's AIDS education program aimed at school-aged youth.

We have surveyed the public school districts across the nation regarding their AIDS education efforts and met with CDC officials. Our report describes the reported growth of AIDS education programs and identifies areas needing improvement.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to the Secretary of Health and Human Services, the Director of CDC, and other interested parties and will provide copies to others on request. Please contact me at (202) 275-6195 if you or your staff have any questions concerning this report. Other major contributors are listed in appendix VI.

Sincerely yours,

Mark V. Nadel

Mark V. Nadel
Associate Director, National and
Public Health Issues

[1]Also at your request in September 1988, we addressed education efforts to reach high-risk persons in AIDS Education: Issues Affecting Counseling and Testing Programs (GAO/HRD-89-39, Feb. 3, 1989) and AIDS Education: Staffing and Funding Problems Impair Progress (GAO/HRD-89-124, July 28, 1989).

Executive Summary

Purpose

About 20 percent of people with acquired immunodeficiency syndrome (AIDS) are in their 20s. As the human immunodeficiency virus's (HIV) median incubation period is estimated at nearly 10 years, many of these people probably were infected with HIV while they were teenagers. AIDS cases among individuals in their 20s increased by 41 percent during 1989, similar to the overall increase in AIDS cases. Without a human vaccine or cure available, HIV education programs are critical as the primary weapon against the medical and social costs of this potentially catastrophic health threat. Centers for Disease Control (CDC) awards for school-based education began with $7 million in 1987 and expanded to $25 million in 1989. Limited information is available about the extent of this rapidly growing school-based program.

The Chairman of the Senate Committee on Governmental Affairs asked GAO to assess the progress of school HIV education programs for his ongoing review of education efforts led by CDC.

Background

Many teenagers are engaging in sexual behavior that can transmit HIV. Some youth also experiment with drugs that cloud their judgment, increase sexual activity, and cause addictive cravings—all of which can lead to high-risk behaviors.

HIV education programs provide information on what AIDS and HIV are, how the virus is spread, and what people can do to prevent infection. Behavioral skills components, such as how to say no to drugs, are also included to teach children how to modify behavior. Training for HIV teachers is critical. Not only must they impart correct information on HIV, they also must impel youth to avoid risky behavior. The latter requires skills in persuasion, group dynamics, and decision-making.

CDC, the lead federal agency for HIV prevention, initiated a nationwide education program late in 1986. It envisioned a multiyear effort to build the nation's school-based HIV education program aimed at reaching the 90 percent of children who are in U.S. public schools. As its main function, CDC provides funds and technical assistance to state and selected local education departments through cooperative agreements. Education departments then design and operate their own programs.

GAO surveyed by telephone officials from a nationwide sample of school districts and the 13 local districts whose direct CDC funding began in 1987. The purpose was to determine if HIV education was offered and

what teacher training was offered. GAO also reviewed CDC records relating to planning and monitoring data collected by the funded state and local education departments. GAO interviewed CDC officials and reviewed existing literature.

Results in Brief

CDC-led nationwide education efforts are not yet commensurate with the epidemic's potential for disaster. Two-thirds of the nation's public school districts reported providing formalized HIV education for students in the 1988-89 school year. It is not, however, offered at every grade level, especially the upper grades, where the probability of sexual activity is highest. Most CDC-funded education departments do not collect from students the essential planning and monitoring information needed to set program priorities and evaluate success. This is due to a lack of staff and difficulty in obtaining community support to collect sensitive sexual and drug use data. One of five HIV teachers received no training. Although the majority of HIV teachers did receive training, it was often insufficient—too brief and coverage of important topics was limited. CDC provides no guidance to districts on the appropriate length of such teacher training.

Principal Findings

HIV Education Usually Required, but Not at All Grade Levels

CDC believes it is crucial that students at every grade level receive age-appropriate HIV education to expand on and reinforce knowledge over the years. But only 5 percent of the school districts required that HIV education be provided at every grade level. The most coverage is in the middle grades (7 through 10) and the least in the upper grades, where the probability of sexual activity is highest.

School district officials told GAO they were restricted by already crowded curricula (see ch. 2). Most public school districts (66 percent) required that HIV education be provided at some point in grades 7-12 during the 1988-89 school year. Of the districts that did not require HIV education, most enrolled fewer than 450 students. CDC officials should pay particular attention to the needs of these smaller districts for HIV education.

Important Planning and Monitoring Data Are Inadequate

The data collected by state and local education departments on students' knowledge, beliefs, and behaviors are inadequate. This hampers efforts to set program priorities, evaluate success, and improve operations, judging by our review of CDC records and discussions with CDC officials. Without such information, educators and CDC attempting to assess high-risk behaviors of youth must rely on the results of other surveys, which may not be related to specific student populations. In 1988, CDC provided funds through cooperative agreements, of which one key objective was to gather adequate student data. CDC has developed suggested questions for districts to ask students (see app. III).

But most recipients did not collect this essential information, CDC officials said, for various reasons. Because this was the first program year for many states, some lacked staff to carry out the requirement. In other cases, recipients could not obtain state or local authorization to ask questions about students' behavior, particularly sexual or drug use behavior (see ch. 2).

Training for Some HIV Teachers Absent or Insufficient

Although education authorities recommend that teachers receive at least 12 hours of training, one-fifth of HIV teachers received no specialized training in the subject. Most HIV teachers (83 percent) did receive training, but it was less than recommended. Of the nation's districts that offered HIV education, teachers in 67 percent received training of 10 hours or less, with a median of only 7 hours. Additionally, in many districts limited training time was devoted to key topics, such as the importance of using condoms.

Most officials of school districts nationwide that offered HIV education expressed a desire to provide more training to their current HIV teachers. Officials stated that the minimal training currently being obtained was related to such problems as not enough in-service days to offer extensive HIV training and teachers being reluctant to attend training outside of regular work hours. One local official, citing limited resources, said the district had a choice of reaching all its HIV teachers with a little training or only a few with more in-depth training.

In contrast, the 13 school districts directly funded by CDC generally trained a higher percentage of teachers, had longer training sessions, and covered key topics more extensively than other districts nationwide. CDC and state officials attributed this difference to the direct CDC funding and the higher incidence of AIDS in these districts (see ch. 3).

CDC's HIV education guidelines recommending that HIV teachers be trained were issued in January 1988. But the agency has not yet set standards for the number of training hours required to effectively teach about HIV or the amount of time to be spent on important topics. While CDC did not disagree that 12 hours may be the minimum necessary, agency officials said they are in the process of researching the extent of training necessary.

Recommendations to the Secretary of Health and Human Services

GAO recommends that the Secretary require the Director of CDC to (1) take a leadership role in developing approaches to extend and reinforce HIV-related education for 11th- and 12th-grade students, (2) work with state education agencies to assist smaller school districts in overcoming resource or community barriers that prevent them from offering HIV education, (3) ensure that state and local grantees collect adequate data from students to evaluate and improve school-based programs, and (4) develop guidelines for the training of HIV educators.

Agency Comments

GAO discussed the contents of this report with the CDC Deputy Director (HIV), the Deputy Director of CDC's Center for Chronic Disease Prevention and Health Promotion, and the Director of the Division of Adolescent and School Health. They generally agreed with the information presented. The officials stated that HIV education should be locally determined and consistent with parental values. They believe that HIV education has expanded to other school districts since GAO collected its data (summer 1989). CDC officials stated that data on students' knowledge, beliefs, and behaviors needed improvement. They also said that some of the data available, even if not generalizable, could be useful if employed in an appropriate manner. After only 1 or 2 years of funding, most school districts in the nation have rapidly begun to provide some form of HIV education, although much remains to be accomplished, the officials said (see ch. 4).

Contents

Executive Summary		2
Chapter 1 Introduction		8
	Background	8
	Objectives, Scope, and Methodology	13
Chapter 2 Student HIV Education		15
	CDC's School-Based HIV Education Program	15
	Most Districts Required HIV Education in 1988-89 School Year	17
	Planning and Monitoring Data Inadequate	21
	Some Sensitive Topics and Behavior Change Skills Not Addressed	23
Chapter 3 Teacher HIV Training Often Inadequate or Lacking		26
	One-Fifth of Teachers Not Trained	26
	Length of HIV Teacher Training Often Insufficient	27
	Limited Time Devoted to Important HIV Topics	28
	Most Districts Would Like Additional HIV Teacher Training	29
Chapter 4 Conclusions, Recommendations, and Agency Comments		30
	Conclusions	30
	Recommendations to the Secretary of Health and Human Services	30
	Agency Comments	30
Appendixes		
	Appendix I: Excerpts From CDC's Guidelines for HIV Education	32
	Appendix II: Estimates and Sampling Errors for Selected GAO Interview Responses	36
	Appendix III: CDC's Suggested KBB Questions for Students	37
	Appendix IV: Topics Covered During In-Service Training by 13 CDC-Funded Districts	43
	Appendix V: Topics Covered During In-Service Training by School Districts Nationwide	44
	Appendix VI: Major Contributors to This Report	45

Tables

Table 2.1: HIV-Related Topics Covered by Sex Education Teachers Nationally 24
Table 2.2: Condom-Related Topics Covered by Sex Education Teachers Nationally 24
Table 2.3: Prevention Topics Included in Teaching Guides 25
Table 3.1: CDC-Funded School Districts Provide Lengthier Teacher Training Than Nationwide 27

Figures

Figure 1.1: Distribution of AIDS Cases Among Adults Versus Adolescents by Means of Transmission (Through Sept. 1988) 10
Figure 2.1: Grade Levels at Which HIV Education Usually Is Taught (1988-89) 18
Figure 2.2: Grade Levels HIV Education First Introduced Into Formal Curricula (1988-89) 20
Figure 2.3: Number of Class Periods of HIV Education (1988-89) 21

Abbreviations

AIDS	acquired immunodeficiency syndrome
CDC	Centers for Disease Control
GAO	General Accounting Office
HIV	human immunodeficiency virus
IV	intravenous
KBB	knowledge, beliefs, and behaviors
STD	sexually transmitted disease

Introduction

American youth are not immune to the potentially catastrophic health and social costs of acquired immunodeficiency syndrome (AIDS). About 20 percent of people with AIDS are in their 20s. Former Surgeon General Koop told the House Select Committee on Children, Youth, and Families in 1987 that "Since the time between infection with the AIDS virus and onset of symptoms may be several years, some proportion of those aged 20-29 who have been diagnosed with AIDS were most likely infected as teenagers." Today, the median incubation period for the human immunodeficiency virus (HIV) is estimated at nearly 10 years. Of additional concern, the number of AIDS cases in the 20- to 29-year-old age group increased by 41 percent from January through December 1989, which was similar to the overall increase in AIDS cases.

Scientific progress has created "a dangerous, perhaps even growing, complacency toward an epidemic many people want to believe is over," the chair of the National Commission on AIDS warned in 1989. But with no human vaccine or cure yet available, AIDS prevention programs are the primary weapon against the medical and social costs of this epidemic. Centers for Disease Control (CDC) awards for youth education were initiated in 1987 at $7 million and grew to $25 million by 1989. Specific information about HIV programs targeted to youth in schools has been limited.

The Chairman of the Senate Committee on Governmental Affairs asked us to assess the status of school AIDS education programs as part of his ongoing review of education and prevention efforts led by CDC.

Background

AIDS is the final stage of the disease caused by infection with HIV. Health experts now realize that HIV infection occurs years before AIDS is manifest; during this time the virus is infectious to other people. Therefore, current emphasis is on education about the dangers of HIV transmission. In the remainder of this report, we refer to education related to all phases of the disease as HIV education.

Youth are at risk of HIV infection through sexual and drug use behavior. They may be at even higher risk of heterosexual transmission than the general population. One study found that many youth lack information about how HIV is transmitted and how to avoid it. Yet even those youth who did have information did not change their behavior.

The HIV Epidemic and Youth

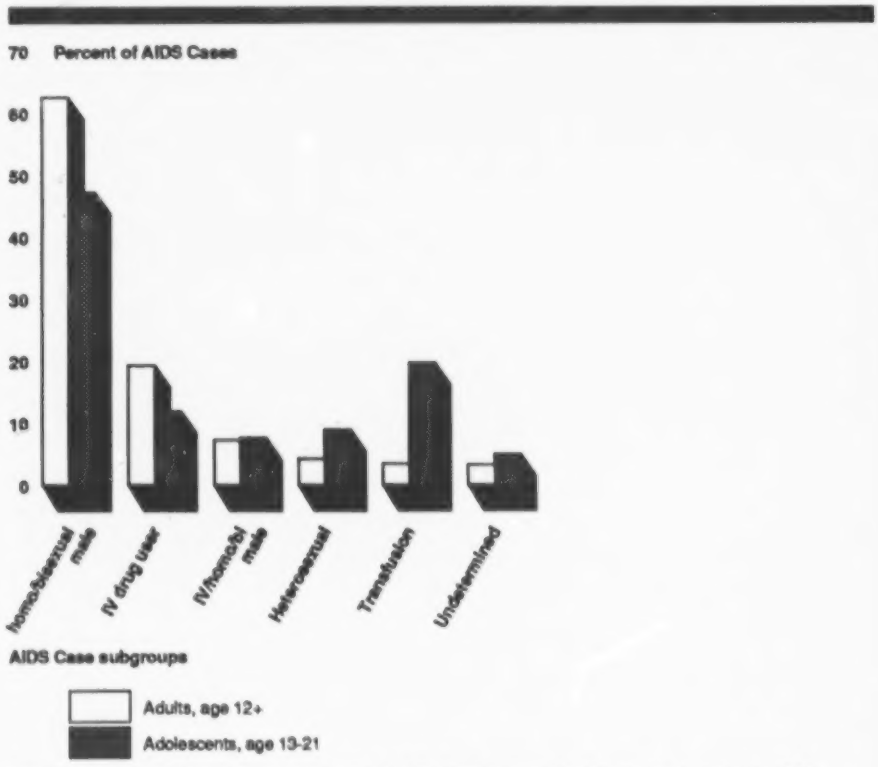
The next generation of persons with AIDS is becoming infected now, as the Journal of the American Medical Association noted in August 1988. There are currently over 35 million youth aged 10-19 in the United States; this number should increase by 10 percent in the 1990s, with half of the increase coming in minority groups, who are at higher risk. "The potential for this epidemic to spread like wildfire among teenagers is blatantly obvious," the chairman of a task force on adolescents for the American Academy of Pediatrics states.

Several New York state and city studies found that 10 in 1,000 19-year-olds and 1 in 1,000 15-year-olds giving birth statewide were infected with HIV. The first large study to determine the rate of HIV infection on college campuses found that about 2 in 1,000 students were infected.[1]

AIDS-infected youth age 12 and over are less likely to have contracted the disease through homosexual behavior or IV drug use than are AIDS-infected individuals generally, data from the Children's Defense Fund show (see fig. 1.1). But transmission of the virus through heterosexual contact is twice as prevalent among youth. The data are drawn from 73,262 total AIDS cases reported through September 1988 (individuals age 12 and over), of whom 865 were youth.

[1]President of the American College Health Association.

Figure 1.1: Distribution of AIDS Cases Among Adults Versus Adolescents by Means of Transmission (Through Sept. 1988)



Source: Children's Defense Fund, Teens and AIDS: Opportunities for Prevention, November 1988, Adolescent Pregnancy Prevention Clearinghouse.

Youthful Sexual Behaviors Increase Risk of HIV

Former Surgeon General Koop has said, "Everything that turns up confirms heterosexual spread [of AIDS], numerically and geographically." Further, heterosexual transmission among inner-city minority youth is a clear and present danger, said Karen Hein of the Albert Einstein College of Medicine, who cites an analysis of the most recent data from New York City. Yet the myth that there is no need to educate heterosexuals because the disease is not spreading beyond homosexual or drug-using people persists, the Citizen's Commission on AIDS says. This belief hinders adequate education efforts.

Many teenagers engage in sexual behaviors, such as unprotected intercourse or intercourse with two or more partners, that can transmit HIV. Data show that:

1. Youth have sex at an early age—the average age of first intercourse is 16. The Office of Technology Assessment reports that 78 percent of males and 63 percent of females have sex while teenagers.

2. For many adolescents, sexual activity is frequent or often with more than one partner. Among unmarried females 15 to 19 years old, about 40 percent reported having sex once a week or more, and 51 percent reported having two or more partners. An official of a national organization serving youth said that adolescents interpret a "long-term monogamous relationship" to be one with their current lover that lasts for several months.

3. Much of teenagers' sexual intercourse occurs without the protection of condoms. Although estimates vary, studies we reviewed found that only about one-quarter of sexually active adolescents used condoms. Serial monogamy in combination with the reluctance to use condoms with one's "monogamous" lover exposes youth to the risks associated with unprotected intercourse with multiple partners.

Homosexual youth, particularly males, are of special concern as they have been one of the high-risk groups for HIV transmission in the United States. As youth, these teens also search for their identity and struggle to establish satisfying relationships, leading them, in some cases, to experiment with heterosexual affiliations. This places lesbian youth, who generally would be in a low-risk category, at heightened risk of infection. Such exploration also serves as a possible link between homosexual and heterosexual youth in the transmission of HIV.

Thus, many teenagers are at risk of HIV infection through sexual contact. The gravity of the situation is indicated by the fact that young people have the highest incidence of sexually transmitted disease (STD) in comparison with other age categories. Nearly one-half of the 20 million STD patients are under age 25. About 2.5 million teenagers contract a sexually transmitted disease annually. The incidence of STD among minority youth is generally far higher than among their white counterparts.

Women who become pregnant through unprotected sexual activities place not only themselves, but also their unborn children, at risk of HIV infection, as the virus can be transmitted perinatally. Ten percent of teenage women become pregnant every year, and 40 percent of U.S. teens will become pregnant at least once before age 20, the Guttmacher Institute reports. There are 1 million teen pregnancies each year.

Drug Use Also Places Youth at Risk of HIV

Some teenagers are directly at risk of contracting HIV through the sharing of contaminated needles used to inject intravenous (IV) drugs. In 1986, 1 percent of high school seniors reported using heroin and 17 percent reported using cocaine, which also can be intravenously injected, a National Institute on Drug Abuse report asserts. In addition, about 3 to 4 percent of the 15- to 16-year-olds in California, Michigan, and the District of Columbia had reported using intravenous drugs, a December 1988 CDC study says.

In addition, drugs with which some adolescents experiment increase their risk of HIV infection by clouding their judgment, increasing their sexual activity, or causing addictive cravings. All can lead to high-risk sexual behaviors. Some then become involved with other drug users who have contracted HIV. For example, young women who use cocaine or crack may engage in relationships with men who use heroin, an injectable drug. Such youth also may exchange sex for money to finance their substance abuse.

Youth Lack Knowledge, Not Changing Behavior

The National Adolescent Student Health Survey, conducted in 1987 with 8th and 10th graders, indicated a serious lack of knowledge on AIDS topics, such as mode of transmission and means of prevention. In particular, youth had some knowledge about how HIV was transmitted, but did not alter their behavior accordingly. Some changed their behavior groundlessly, for example, not touching doorknobs or sharing popcorn.

In a 1986 study of teens in Massachusetts, 96 percent said they knew about AIDS, but only 15 percent had changed their sexual behavior because of concern about it. Of these, only 20 percent took steps such as using condoms or abstaining from sex; 54 percent said they did not worry at all about catching AIDS.

Teens experiment freely with drugs and sex for the same reason that they drink or smoke too much and drive too fast. They tend not to believe in their own mortality, states the North American Directory of Programs for Runaways, Homeless Youth and Missing Children. Reaching teens with the AIDS message is difficult because most youth do not even think in terms of tomorrow, let alone 5 or 10 years down the road, the latency period for AIDS.

Adolescence is characterized by impulsiveness, a desire for immediate gratification, and a tendency to question authority. The latter is especially true when advice from authorities disagrees with the adolescent's

own limited personal experiences. Other adolescent characteristics, such as their search for an identity and self-esteem with a subsequent need for peer approval, make it difficult for them to resist peer pressure. A lack of social experience, coupled with the dynamics of new sexual relationships, makes it hard for adolescents to justify abstinence from sex or drugs, or the use of condoms.

Objectives, Scope, and Methodology

We focused this review on determining the status of the following:

- Student HIV education required by school districts' formal curricula for grades 7-12, what grade, course, and for how many class periods it is taught.
- Data collection by CDC-funded state and local education departments on students' HIV knowledge, beliefs, and behaviors for use in planning, monitoring, and improving courses.
- In-service training for HIV classroom teachers and for how long topics are covered.

We conducted structured telephone interviews of superintendents or their designated staff from 232 randomly selected school districts and the 13 local districts directly funded by CDC in 1987.[2] Our findings for the randomly selected districts are representative of the approximately 14,200 school districts nationwide in our universe.[3] The findings represent the status of required student HIV education and HIV teacher training for all school districts in our universe in the 1988-89 school year. The margin of error for our findings is generally ± 5 to ± 10 percentage points, depending on the item. Sampling errors for specific numbers are provided in appendix II. Our findings for the 13 CDC directly funded districts reflect the status of HIV education in these cities, which were funded because they had high AIDS caseloads.

Because the school district generally has considerable control over local HIV education, we discuss the reported activities and requirements of

[2]We completed interviews in 93 percent of the 232 randomly selected districts and all the 13 other districts. Although we did not sample on the basis of student population, we estimate that the responding districts accounted for 98 percent of public school students in our universe.

[3]We used the 1987-88 public education agency universe of the Department of Education's common core of data. This is derived from a survey that includes the approximately 15,600 school districts in the nation in 1987-88. The universe for our survey excluded local school districts where the highest grade was less than 7, nonlocal school districts (such as supervisory/regional districts and state-operated agencies), and 49 superintendent offices in California that were designated as local districts but had no student counts. This left about 14,200 school districts from which we sampled.

school districts. Our estimates of the extent of HIV education are stated in terms of the frequency with which school districts reported various HIV education activities. They do not include estimates of the number of students receiving HIV education. Student estimates would have required data collection at the school level, which was beyond the scope of our study.

Our information on student HIV education reflects what school district officials reported was required by school districts' formal curricula. We did not talk to teachers or visit classrooms to see if HIV teachers were actually adhering to school districts' curricula requirements, although we did visit one location before our survey. Nor did we collect information about HIV education occurring informally or as part of elective courses. In addition to reviewing the literature related to AIDS education, we drew on two studies to help assess what students were taught in the classroom. (See p. 23.)

The information we present on in-service teacher training relates only to the training that school districts reported was received by classroom teachers who teach about HIV. Also, this information relates only to districts that required HIV education.

We conducted our work at CDC headquarters in Atlanta between May and December 1989. Telephone interviews were done between May 31 and August 18, 1989. Additionally, we interviewed CDC officials responsible for managing these HIV activities and reviewed associated financial records, cooperative agreement documents, and other CDC records. We discussed the results of our school district interviews with officials from CDC, six states that had the most districts providing HIV education in our sample, and three local education departments on the east and west coasts to obtain their reactions. Their comments were incorporated where appropriate.

Our work was done in accordance with generally accepted government auditing standards. At the request of the Committee, we obtained oral rather than written agency comments on a draft of this report.

Student HIV Education

Nationwide, the majority of school districts had incorporated some form of HIV education into their curriculum in the 1988-89 school year. While nearly all large schools offered such training, a disturbing number of smaller school districts (fewer than 450 students) had not required HIV education for their students. Even schools that offered HIV education programs typically did not require them at all grade levels. Only 5 percent of school districts nationwide offered HIV education at each grade level in the 1988-89 school year. HIV education often was not provided at the highest grades, where the probability of high-risk behaviors by youth increases.

The Centers for Disease Control has recommended that HIV education be provided at each grade level. CDC believes schools should present age-appropriate HIV information that is expanded upon and reinforced as the students pass from one grade to another.

CDC's School-Based HIV Education Program

CDC is the lead federal agency for HIV prevention programs. Its Division of Adolescent and School Health, in the Center for Chronic Disease Prevention and Health Promotion, has responsibility for youth education. CDC's national education program primarily targets students enrolled in public schools because these schools can reach about 90 percent of the young people in kindergarten through 12th grade. CDC describes this as a multiyear effort to build the nation's school-based HIV education program. CDC encourages state and local education departments to

- develop curricula and necessary support materials (such as texts, videos, and workbooks);
- train HIV education teachers;
- educate parents to support HIV education; and
- monitor the programs by collecting student information.

CDC Funding Since 1987

Since it began efforts toward HIV education in schools in late 1986, CDC has funded programs principally through cooperative agreements with state and local education departments. In September 1987, CDC awarded $5.4 million to 14 state and 13 local education departments, including the District of Columbia. These 27 awards, ranging from $119,500 to $342,607, involved education departments that served areas with a high incidence of AIDS cases.

Also in 1987, CDC awarded $1.8 million to 15 national organizations, such as the Council of Chief State School Officers and the National Association of State Boards of Education. These organizations were to use the funds, ranging from $92,919 to $302,000, to help increase the number of schools and other organizations providing HIV education to youth.

In August and September 1988, CDC extended funding to a total of 53 state and territorial and 17 local education departments. These 70 agreements totaled $16.7 million, ranging from $81,182 to $441,267. Similarly, CDC awarded $3.8 million to 19 national organizations in 1988. In 1989, CDC awarded a total of $25 million to all these organizations.

Generally, state and local education departments are responsible for managing their cooperative agreements. CDC provides general guidance and oversight (see app. I for CDC's guidelines). This cooperative effort stresses the importance of providing immediate education about high-risk behaviors to students. Specific education department activities include developing curricula and materials, training teachers, educating parents, and completing surveys of students' HIV knowledge, beliefs, and behaviors.

State Involvement in HIV Education

States have been addressing HIV education issues, as shown by a December 1988 survey conducted by the Council of Chief State School Officers. The council canvassed all 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and American Samoa. For these 54 jurisdictions, the council reported: (1) 41 had either a state law or state policy concerning HIV education in schools; (2) 41 had a curriculum or a curriculum guide for HIV education, of which 32 were advisory and 9 mandatory; and (3) 41 provided teacher in-service training programs for HIV education. Only two states said they had not addressed any of the above three categories.

That HIV education was required in 28 states and the District of Columbia was reported in another survey covering 55 states and territories. It was conducted by the National Association of State Boards of Education in May 1989.

Most Districts Required HIV Education in 1988-89 School Year

Sixty-six percent of school districts nationwide reported to us that they required students to receive HIV education as part of their formal curricula in the 1988-89 school year. Of the remaining districts, 27 percent did not require HIV education, and 7 percent could not be contacted or refused to participate in our survey. Most districts that did not require HIV education had fewer than 450 students; very few had 2,500 or more students. CDC should pay particular attention to these smaller districts to determine their needs in initiating HIV education. The 13 directly CDC-funded school districts all required students to receive HIV education, as their cooperative agreement funding was earmarked to help provide such education.

Reasons why school districts required HIV education include the following:

- State mandates requiring local districts to teach HIV education and districts' initiatives to respond to the HIV epidemic.
- The national HIV education program and media attention about HIV.

As to why some districts did not require HIV education, the following reasons were offered:

- Conservative community values, fear of community reaction, or low incidence of HIV infection locally.
- Insufficient school time to give students the necessary hours of instruction as well as parental reluctance for schools to teach about "safe sex."

Some districts not requiring HIV education indicated that they planned to implement such programs soon or were in the process of developing HIV teaching guides. Also, some districts provided informal HIV education either during a school assembly or at the initiative of individual teachers, they said.

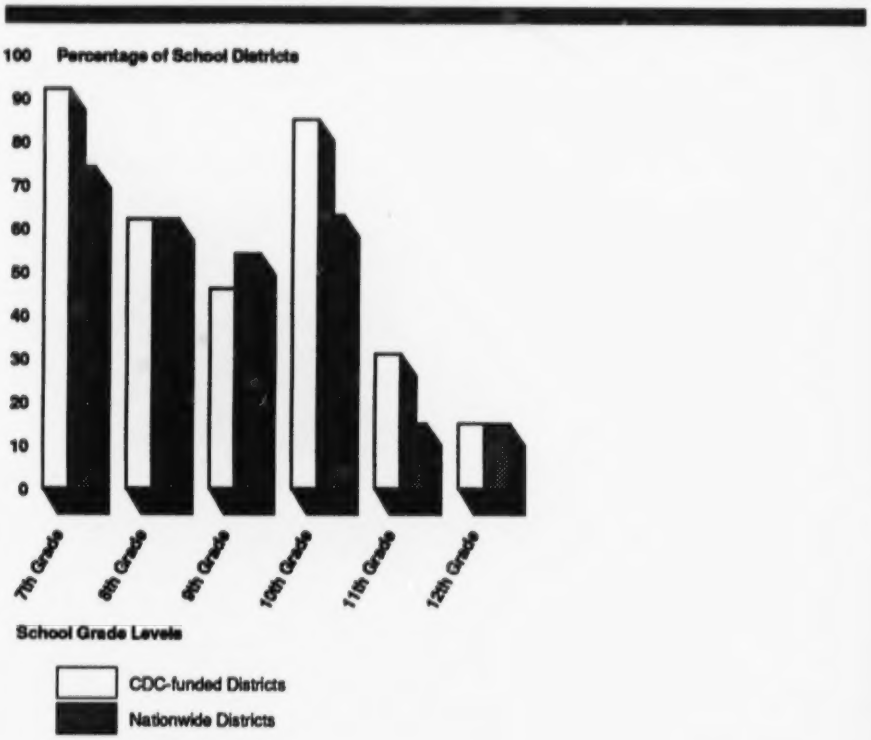
HIV Education Not Provided at All Grade Levels

Very few school districts required HIV education in each grade, our survey of districts with grades 7-12 showed. Only 5 percent of districts with grade levels 7 through 12 nationwide, and 1 of the 13 high caseload districts directly funded by CDC, required such education at each level. It is crucial that sufficient classroom time be provided at each grade level, CDC guidelines advise. This helps assure that students acquire essential age-appropriate knowledge about HIV and have the information expanded and reinforced each year. CDC and almost all state officials

said already crowded curricula prevented districts from requiring HIV education at all grade levels.

Most school districts nationwide and the CDC-funded districts required that students receive HIV education at some time in the 7th through 10th grades. About three-quarters of districts nationwide required students to receive HIV education in the 7th grade, while few offer it at upper grade levels (see fig. 2.1).

Figure 2.1: Grade Levels at Which HIV Education Usually Is Taught (1988-89)



Note: Percentages total to more than 100 because school districts may require HIV education in more than one grade.

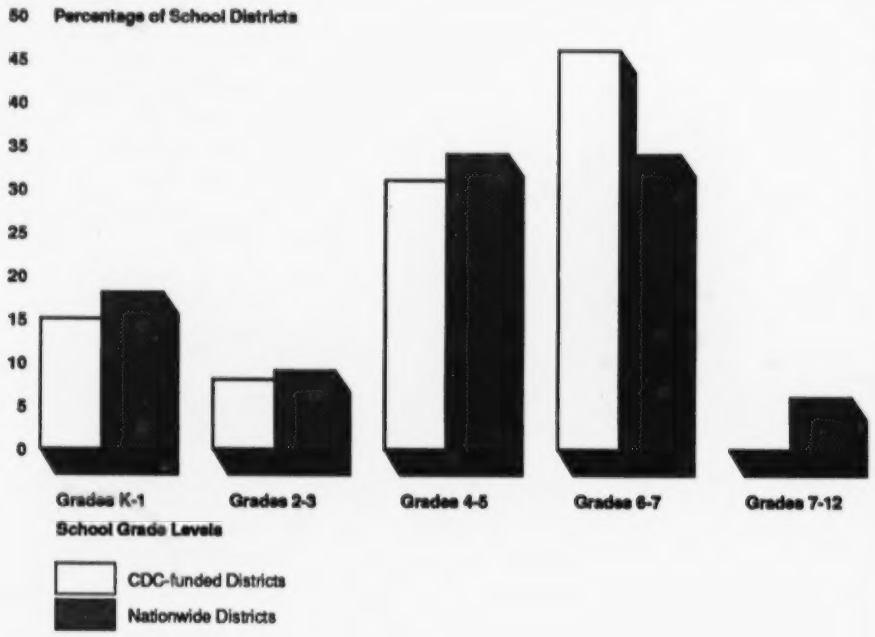
Most districts nationwide (79 percent) and most of the directly funded districts (69 percent) required HIV education in health classes, as recommended by CDC. Health usually is taught in grades 7 through 10, CDC officials say. Our data show a drop in HIV education in grades 11 and 12.

Even if health is not offered in these grades, HIV education should be continued in some format for older teens, in accordance with CDC recommendations. The increasing likelihood of the onset of sexual activity and the need for reinforcement of the AIDS message offer compelling arguments for doing so.

HIV Education Introduced in Primary Grades

Most districts reported that they had begun HIV education in formal curricula before the seventh grade—over half of the nationwide and CDC-funded districts that required HIV education had introduced it by the fifth grade (see fig. 2.2). CDC officials recommend that age-appropriate HIV education be provided at each grade level. If this recommendation were strictly followed, then HIV education should be available in first grade or kindergarten. However, given the early introduction of training, most students received HIV information before the average onset of sexual or IV drug use behavior.

Figure 2.2: Grade Levels HIV Education First Introduced Into Formal Curricula (1988-89)

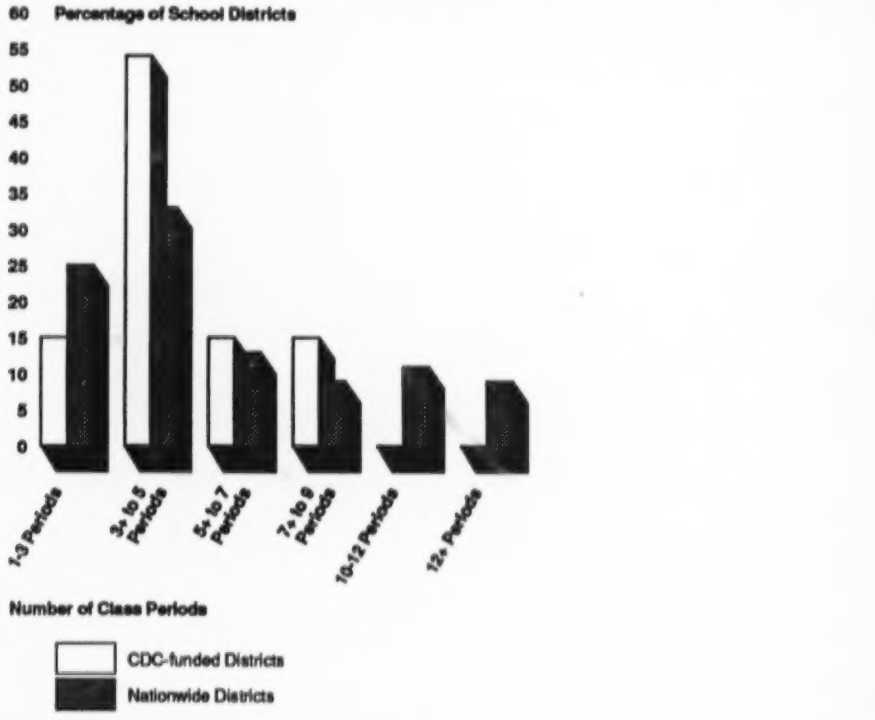


Note: Sampling errors for these percentages are 7 percentage points or less.

Time Devoted to HIV Education Varied

Nationally, from 1 to 40 class periods were required by HIV curricula during the academic year, the school districts reported. A class period usually lasts about 50 minutes. Nationwide districts and the 13 CDC-funded districts required students to receive a median of five class periods of HIV education. Twenty percent of districts nationwide reported that 10 or more class periods were required, and 25 percent reported that 3 periods or fewer were required (see fig. 2.3).

Figure 2.3: Number of Class Periods of HIV Education (1988-89)



Planning and Monitoring Data Inadequate

By the end of the 1988-89 school year, most of the 70 state or local education agencies receiving CDC grants had not collected essential planning and monitoring data. Of the 70 grantees, 14 did not even conduct the necessary surveys on students' HIV knowledge, beliefs, and behaviors (KBB), and 3 departments had not provided necessary data to CDC to evaluate sampling results. Forty-five conducted surveys that did not meet essential standards—they were not generalizable and/or did not contain questions relating to students' behaviors. Only eight collected adequate data. Of the 56 departments that did surveys, 27 obtained sex and drug behavior information, but only 8 obtained results that met both essential standards. The 70 HIV education cooperative agreements with state and local education departments that CDC funded in 1988 included a provision to gather this planning and monitoring information.

KBB data are critical to managing, evaluating, and improving state and local education department HIV education programs. Using baseline KBB

survey data, an education department can identify students' knowledge about HIV and the extent to which behaviors that spread HIV are practiced. This information then can be used to establish educational priorities and set objectives for changing attitudes and reducing risky behaviors. Follow-up KBB surveys can provide a basis for measuring program impact and evaluating results. Without such information, CDC and educators must rely on proxy information on the general trends of sexual and drug behavior reported by other surveyors, which may not be related to their specific population of youth.

CDC identified two essential standards for effective KBB surveys:

1. Results should be generalizable to the student population. Such results provide an accurate picture of the population and can be used to make decisions about the entire HIV program. On various occasions, such as CDC's November 1988 School Health Education Workshop, CDC noted the importance of obtaining such statistically useful survey information.

2. Questions about students' sex and drug behavior should be included to provide essential information on the extent to which students engage in risky behaviors that spread HIV. Because the basic purpose of HIV education is to eliminate such behavior, CDC views collection of information about students' sex and drug practices as essential to setting program priorities and monitoring results. CDC has developed a questionnaire that school districts can use to assess students' KBBs (see app. III).

In our opinion, the KBB data collected are insufficient because the data are often not generalizable and because of the limited extent of behavioral information. CDC officials stated that KBB data needed improvement, but that some of the data could be useful, although they did not meet essential standards. They stated that some education agencies (1) lacked available staff to collect them because this was the first program year for many states and/or (2) had difficulty obtaining authorization to gather certain sensitive information regarding students' sexual or IV drug behavior. Among the obstacles to obtaining such data was the perceived community concerns about gathering data on students' sexual or IV drug behavior.

Much more remains to be learned about how to motivate long-term changes in the sexual and drug-using behaviors that spread HIV, as we

testified in June 1988.[1] Neither public organizations nor private foundations providing HIV education have done much to ascertain the effects of their programs, recent research shows. Faced with methodological difficulties, limited resources, and the urgency of controlling the epidemic, early education programs skimped on evaluation. As a result, information about the effectiveness of public and private programs has accumulated slowly. But tight budgets and the urgency of slowing the spread of HIV among youth only heighten the importance of understanding the effectiveness of education programs.

The federal government should take the lead, we testified, in conducting rudimentary studies of what does and does not work in HIV education. Although school health education is an old field, there has been little research on how to modify it for HIV education. The particular challenge is not solely to impart information about the epidemic to youth but to modify behaviors that place them at risk.

In 1988, CDC contracted with IOX Assessment Associates to conduct a $3.2 million, 5-year study of what educational approaches work best with youth in modifying their high-risk behaviors. While awaiting its completion, valuable KBB data should be collected and used to plan and modify programs.

Some Sensitive Topics and Behavior Change Skills Not Addressed

Two other studies provide some insights on what students have been taught about HIV:

1. More than 90 percent of public school sex education teachers surveyed by the Alan Guttmacher Institute[2] reported that they covered selected HIV-related topics. For example, 96 percent reported explaining

[1] Issues Concerning CDC's AIDS Education Programs (GAO/T-HRD-88-18, June 8, 1988).

[2] J. D. Forrest and J. Silverman. "What Public School Teachers Teach About Preventing Pregnancy, AIDS and Sexually Transmitted Diseases," Family Planning Perspectives, Vol. 21, No. 2, Mar./Apr. 1989.

how HIV is transmitted (see table 2.1). However, some of the more sensitive topics, such as homosexuality or "safer sex" practices, were covered less frequently. The nationwide survey covered public school sex education teachers in grades 7-12.[3]

Table 2.1: HIV-Related Topics Covered by Sex Education Teachers Nationally

Numbers in percent

HIV-related topics covered	Covered by teachers
How AIDS is transmitted	96
Effects of the disease	94
Symptoms of the disease	91
Condoms as prevention	91
Sexual decision-making	90
Abstinence from intercourse	89
Importance of notifying partners if infected	86
Sexual monogamy as prevention	85
Confidentiality of medical treatment	77
Homosexuality	69
Specific sources of help for students	65
"Safer sex" practices	64

Many teachers responding provided information about the condom and how to use it, according to the survey, as table 2.2 indicates.

Table 2.2: Condom-Related Topics Covered by Sex Education Teachers Nationally

Numbers in percent

Condom-related topics covered	Covered by teacher
How to use a condom	77
Teach that condoms should be put on before any vaginal contact by the penis	68
Encourage condom use for prevention of HIV and other sexually transmitted diseases	53
Address such concerns as reduced sexual pleasure and lack of spontaneity	46
Teach that condoms should always be used with spermicides	45

[3]Of the 9,800 teachers surveyed, 4,241 responded, yielding a response rate of about 45 percent. The response rate differed by teacher specialty. It was highest among nurses. Respondents were similar to nonrespondents in metropolitan status, although teachers from schools with 501-1,000 students were slightly more likely than those from schools with larger or smaller enrollments to respond to the survey. Teachers from the North Central region of the country had a slightly higher response rate, and those from the South had a slightly lower response rate than those from other regions. The authors note that the size of the school and region of the country were not significantly related to the responses on a number of variables investigated, suggesting little bias by these factors, other than that by differences by specialty.

2. Some important prevention topics, such as proper use of condoms and peer resistance skills, were not included in many of the 43 secondary school HIV teaching guides reviewed by CDC in an unpublished study (see table 2.3), although CDC feels that the data should be further analyzed. The guides were obtained from CDC's AIDS School Health Education data base. CDC officials noted that the federal HIV education role does not mandate a specific school curriculum.

Table 2.3: Prevention Topics Included in Teaching Guides

Numbers in percent

HIV prevention topic	Covered by teaching guides
Personal responsibility	
Peer resistance and refusal skills	37
Enhancement of self-esteem	44
Modify own behavior	79
Abstinence	
Sex	93
IV drugs	91
Monogamy	
Mutually faithful with uninfected partner	47
Condoms	
Mentioned	93
Reduce risk of exposure to HIV	79
Additional protection if used together with spermicide	42
Used properly from start to finish with each sexual act	37
Instruction or demo on use	16
Drugs	
Avoid IV use	91
Do not share needles or syringes	91
Cleaning of works	12
Seek treatment if addicted	23

Teacher HIV Training Often Inadequate or Lacking

About one out of five HIV teachers in school districts we surveyed had received no training in the subject. Even though most HIV teachers were trained, both the length of this HIV training and the coverage of important topics often were insufficient. Most of the officials of the districts we surveyed indicated an interest in providing HIV teachers with additional training.

Teacher training is a critical component of effective school-based HIV education. In June 1988, the Presidential Commission on the HIV Epidemic recommended that HIV teachers receive extensive in-service training before they begin instruction. In addition, CDC recommended in January 1988 that HIV teachers should receive specific training as soon as possible (see app. I).[1]

One-Fifth of Teachers Not Trained

Our survey showed that about one out of every five HIV teachers nationwide had not been trained by the end of the 1988-89 school year. Twelve percent of the school districts nationwide that required student HIV education provided no teacher training. In about two-fifths of the districts not providing training, officials said teachers do not need HIV training, and the remaining three-fifths cited various barriers to training. These included lack of in-service training days and lack of money to pay for substitute teachers to relieve HIV teachers for training.

In-service HIV teacher training was available and utilized by the majority of teachers in our nationwide survey.[2] Specifically, 83 percent of HIV teachers in the nation's school districts actually received the training. All 13 CDC-funded school districts provided HIV teacher training; 91 percent of the HIV teachers in these districts received HIV training.

Several reasons for the reported teacher training coverage were given by state and CDC officials. Two state officials said that school districts understand that teachers need to receive HIV training. State mandates, HIV teachers requesting training, and CDC's emphasis on training were listed by other state officials as additional reasons. The extensive publicity concerning HIV and the ready availability of HIV teaching materials helped boost the number of teachers trained, CDC officials added.

[1]CDC, Guidelines for Effective School Health Education to Prevent the Spread of AIDS, Jan. 1988.

[2]Some schools require in-service training to be offered to teachers during duty hours or compensate teachers for the time necessary to complete such training.

Length of HIV Teacher Training Often Insufficient

While HIV teachers in school districts that required HIV education do receive HIV education training, it generally is not as extensive as education experts recommend or school districts want. Officials of state and local education departments and national education organizations believe that teachers should receive a minimum of 12 hours of HIV instruction. This provides basic information about HIV, they contend, and helps ensure comfort in discussing topics of human sexuality. More training time is necessary for teachers who lack a background in health education.

Generally, HIV teachers received less than 12 hours of training, school district officials nationwide told us (see table 3.1). In 67 percent of school districts nationally, HIV teachers received training of 10 hours or less; in 32 percent of districts, 4 hours or less.

HIV classroom teachers in the 13 CDC-funded districts generally received more in-service training than those nationwide—a median of 12 versus 7 hours. However, HIV teachers in almost one-half of the CDC-funded districts received training that lasted 10 hours or less.

Table 3.1: CDC-Funded School Districts Provide Lengthier Teacher Training Than Nationwide

	Hours of training		
Type of school district	Lowest quarter	Median	Highest quarter
13 CDC-funded districts	8	12	16
Other school districts nationwide	4	7	12

CDC has performed no systematic classroom observations to determine the nature of HIV education provided nationally. We visited one location before our survey and observed a range of teacher quality in terms of the information presented, teaching style, and student reactions.

CDC issued guidelines in January 1988 recommending that HIV teachers be trained as soon as possible. But it has not yet developed official or even preliminary standards for the number of training hours required by teachers to effectively instruct an HIV course. While CDC officials did not disagree with the 12-hour minimum, they contend that sufficient evidence on the optimal number of hours for HIV teacher training is not available to support a specific level of training. CDC is concerned that recommending a minimum amount of time for teacher training may be undesirable, as it may mistakenly be used as a standard. However, in light of the seriousness of the HIV epidemic, preliminary guidelines that

are updated as additional research data are available would be appropriate. For instance, guidance on the amount of time to be spent on individual topics to provide meaningful instruction would be useful to school districts, even if a total time for the entire HIV teacher training course is not provided. Such guidelines on content and coverage would be a first step in ensuring the quality of the HIV training.

Limited resources, such as funds for substitute teachers while HIV teachers are in training, prevented districts from providing more training, state and local officials said. Among their responses:

- The choice was between reaching all HIV teachers with a little training or only a few with more in-depth training.
- School administrators may not understand that training teachers to deal with sensitive HIV subjects requires more training time.
- Teachers in the 13 CDC-funded districts generally received longer training, because of the direct CDC funding available and/or because the higher incidence of HIV in their communities served as an impetus.

With respect to the latter, if a higher AIDS caseload has been an impetus for these districts, other districts should not wait for a similar problem to provide their motivation for pursuing HIV education. The chief benefit of HIV education is to prevent infection from occurring.

Limited Time Devoted to Important HIV Topics

Limited time was devoted to some key topics in teachers' HIV training, perhaps in part due to the insufficient length of in-service training. For half or more of the nation's school districts, training covered 5 of 14 key topics for 15 minutes or less, which educators contend is an insufficient amount of time. These topics tended to cover sensitive subjects, such as the importance of using condoms and the dangers of unprotected homosexual intercourse and multiple sex partners. (See app. V for a list of the key topics with their coverage.)

Conversely, in the 13 CDC-funded districts, the 14 key teacher training topics almost always are discussed for more than 15 minutes, officials reported. Most of the districts addressed sensitive topics for more than 15 minutes. Topics included the importance of using condoms and the risks of unprotected homosexual intercourse. (See app. IV for a list of the key topics with their coverage.)

Teacher training should cover topics and approaches having the greatest potential for changing student behavior that could lead not only to

AIDS, but also to teen pregnancies and drug abuse problems, CDC guidelines say. Among these are modes of HIV transmission and behaviors that spread HIV; ways to discuss sensitive topics, such as the use of condoms and homosexual behavior; and ways to help youth resist persuasion, gain decision-making skills, and build self-esteem so they can resist risky behaviors. These topics should be covered for a sufficient amount of time—more than 15 minutes—to allow teachers to gain expertise, educators feel.

But teacher training for some controversial or sensitive HIV topics was limited, state and local officials noted, because school staff or individuals in the community were uncomfortable. With limited training time available to start with, one state official said, topics that are too sensitive for teachers or the community are just not substantively addressed.

Most Districts Would Like Additional HIV Teacher Training

More in-service training is needed, school district officials in 54 percent of districts asserted, and 25 percent said more HIV teachers are needed. School district officials nationwide listed several problems that inhibit their ability to give teachers additional training or train more teachers. Among these problems are the following:

- Too few in-service days available to do extensive training.
- Teachers' reluctance to attend training held outside of regular contract or working hours.
- Not enough money to pay for substitute teachers.
- Too few substitute teachers to release HIV classroom teachers for training.

In 12 of the 13 CDC-funded districts, officials want to provide more HIV training to teachers. In 7 of the 13 districts, officials said the number of teachers trained is fewer than needed. Officials listed barriers similar to districts nationwide, such as too few in-service days for extensive training, too little money to pay for substitute teachers, and too few substitute teachers to release HIV classroom teachers for training.

Conclusions, Recommendations, and Agency Comments

Conclusions

Two-thirds of the nation's public school districts reported HIV education programs in progress in grades 7-12 for the 1988-89 school year. Those not offering HIV education tended to be the smallest school districts. Additional focus on these districts is needed to ascertain their needs in initiating HIV education. But only 5 percent of school districts nationwide required HIV education at every grade level, as CDC recommends. HIV education drops off noticeably in the 11th and 12th grades, yet this is when students become more sexually active. Moreover, important data on students' knowledge, beliefs, and behaviors needed to plan and monitor HIV programs either have not been collected or are inadequate to set educational priorities, evaluate success, and improve HIV programs.

The majority of teachers in school districts nationwide that required HIV education have received in-service training on how to teach about AIDS. Such training, however, is not as extensive as the districts prefer or authorities recommend. One out of every five HIV instructors has received no training.

Judging by available statistics, youth are at risk of HIV infection through various sexual and drug use behaviors. They are at higher risk than adults through heterosexual exploration. AIDS education programs are the primary means to prevent HIV infection in youth. The effort to educate youth about AIDS began only after several years of the epidemic. Although education is increasing in scope and sophistication, it is not yet commensurate with the threat posed and the call by the Surgeon General in 1986 for immediate action.

Recommendations to the Secretary of Health and Human Services

GAO recommends that the Secretary require the Director of CDC to (1) take a leadership role in developing approaches to extend and reinforce HIV-related education for 11th- and 12th-grade students, (2) work with state education agencies to help smaller school districts overcome resource or community barriers preventing them from offering HIV education, (3) ensure that state and local grantees collect adequate KBB data from students to evaluate and improve school-based programs, and (4) develop guidelines for the training of teachers who instruct the HIV education courses.

Agency Comments

We discussed the contents of this report with the CDC Deputy Director (HIV), the Deputy Director of CDC's Center for Chronic Disease Prevention and Health Promotion, and the Director of the Division of Adolescent and School Health. They generally agreed with the information

presented. The officials stated that HIV education should be locally determined and consistent with parental values. These officials believe that HIV education has expanded to other school districts since the time of our data collection during the summer of 1989. CDC officials stated that data on students' knowledge, beliefs, and behaviors needed improvement but that some data, even if not generalizable, could be useful. After only 1 or 2 years of funding, the officials said, most school districts in the nation have begun rapidly to provide some form of HIV education, although much remains to be accomplished.

Excerpts From CDC's Guidelines for HIV Education

Planning and Implementing Effective School Health Education about AIDS

The Nation's public and private schools have the capacity and responsibility to help assure that young people understand the nature of the AIDS epidemic and the specific actions they can take to prevent HIV infection, especially during their adolescence and young adulthood. The specific scope and content of AIDS education in schools should be locally determined and should be consistent with parental and community values.

Because AIDS is a fatal disease and because educating young people about becoming infected through sexual contact can be controversial, school systems should obtain broad community participation to ensure that school health education policies and programs to prevent the spread of AIDS are locally determined and are consistent with community values.

The development of school district policies on AIDS education can be an important first step in developing an AIDS education program. In each community, representatives of the school board, parents, school administrators and faculty, school health services, local medical societies, the local health department, students, minority groups, religious organizations, and other relevant organizations can be involved in developing policies for school health education to prevent the spread of AIDS. The process of policy development can enable these representatives to resolve various perspectives and opinions, to establish a commitment for implementing and maintaining AIDS education programs, and to establish standards for AIDS education program activities and materials. Many communities already have school health councils that include representatives from the aforementioned groups. Such councils facilitate the development of a broad base of community expertise and input, and they enhance the coordination of various activities within the comprehensive school health program (*6*).

AIDS education programs should be developed to address the needs and the developmental levels of students and of school-age youth who do not attend school, and to address specific needs of minorities, persons for whom English is not the primary language, and persons with visual or hearing impairments or other learning disabilities. Plans for addressing students' questions or concerns about AIDS at the early elementary grades, as well as for providing effective school health education about AIDS at each grade from late elementary/middle school through junior

high/senior high school, including educational materials to be used, should be reviewed by representatives of the school board, appropriate school administrators, teachers, and parents before being implemented.

Education about AIDS may be most appropriate and effective when carried out within a more comprehensive school health education program that establishes a foundation for understanding the relationships between personal behavior and health (*7-9*). For example, education about AIDS may be more effective when students at appropriate ages are more knowledgeable about sexually transmitted diseases, drug abuse, and community health. It may also have greater impact when they have opportunities to develop such qualities as decision-making and communication skills, resistance to persuasion, and a sense of self-efficacy and self-esteem. However, education about AIDS should be provided as rapidly as possible, even if it is taught initially as a separate subject.

State departments of education and health should work together to help local departments of education and health throughout the state collaboratively accomplish effective school health education about AIDS. Although all schools in a state should provide effective education about AIDS, priority should be given to areas with the highest reported incidence of AIDS cases.

Preparation of Education Personnel

A team of representatives including the local school board, parent-teachers associations, school administrators, school physicians, school nurses, teachers, educational support personnel, school counselors, and other relevant school personnel should receive general training about a) the nature of the AIDS epidemic and means of controlling its spread, b) the role of the school in providing education to prevent transmission of HIV, c) methods and materials to accomplish effective programs of school health education about AIDS, and d) school policies for students and staff who may be infected. In addition, a team of school personnel responsible for teaching about AIDS should receive more specific training about AIDS education. All school personnel, especially those who teach about AIDS, periodically should receive continuing education about AIDS to assure that they have the most current information about means of controlling the epidemic, including up-to-date information about the most effective health education interventions available. State and local departments of education and health, as well as colleges of education, should assure that such in-service training is made available to all schools in the state as soon as possible and that continuing in-service and pre-service training is subsequently provided. The local school board should assure that release time is provided to enable school personnel to receive such in-service training.

Programs Taught by Qualified Teachers

In the elementary grades, students generally have one regular classroom teacher. In these grades, education about AIDS should be provided by the regular classroom teacher because that person ideally should be trained and experienced in child development, age-appropriate teaching methods, child health, and elementary health education methods and materials. In addition, the elementary teacher usually is sensitive to normal variations in child development and aptitudes within a class. In the secondary grades, students generally have a different teacher for each subject. In

these grades, the secondary school health education teacher preferably should provide education about AIDS, because a qualified health education teacher will have training and experience in adolescent development, age-appropriate teaching methods, adolescent health, and secondary school health education methods and materials (including methods and materials for teaching about such topics as human sexuality, communicable diseases, and drug abuse). In secondary schools that do not have a qualified health education teacher, faculty with similar training and good rapport with students should be trained specifically to provide effective AIDS education.

Purpose of Effective Education about AIDS

The principal purpose of education about AIDS is to prevent HIV infection. The content of AIDS education should be developed with the active involvement of parents and should address the broad range of behavior exhibited by young people. Educational programs should assure that young people acquire the knowledge and skills they will need to adopt and maintain types of behavior that virtually eliminate their risk of becoming infected.

School systems should make programs available that will enable and encourage young people who have not engaged in sexual intercourse and who have not used illicit drugs to continue to—

- Abstain from sexual intercourse until they are ready to establish a mutually monogamous relationship within the context of marriage;
- Refrain from using or injecting illicit drugs.

For young people who have engaged in sexual intercourse or who have injected illicit drugs, school programs should enable and encourage them to—

- Stop engaging in sexual intercourse until they are ready to establish a mutually monogamous relationship within the context of marriage;
- To stop using or injecting illicit drugs.

Despite all efforts, some young people may remain unwilling to adopt behavior that would virtually eliminate their risk of becoming infected. Therefore, school systems, in consultation with parents and health officials, should provide AIDS education programs that address preventive types of behavior that should be practiced by persons with an increased risk of acquiring HIV infection. These include:

- Avoiding sexual intercourse with anyone who is known to be infected, who is at risk of being infected, or whose HIV infection status is not known;
- Using a latex condom with spermicide if they engage in sexual intercourse;
- Seeking treatment if addicted to illicit drugs;
- Not sharing needles or other injection equipment;
- Seeking HIV counseling and testing if HIV infection is suspected.

State and local education and health agencies should work together to assess the prevalence of these types of risk behavior, and their determinants, over time.

Curriculum Time and Resources

Schools should allocate sufficient personnel time and resources to assure that policies and programs are developed and implemented with appropriate community involvement, curricula are well-planned and sequential, teachers are well-trained, and up-to-date teaching methods and materials about AIDS are available. In addition, it is crucial that sufficient classroom time be provided at each grade level to assure that students acquire essential knowledge appropriate for that grade level, and have time to ask questions and discuss issues raised by the information presented.

Program Assessment

The criteria recommended in the foregoing "Guidelines for Effective School Health Education To Prevent the Spread of AIDS" are summarized in the following nine assessment criteria. Local school boards and administrators can assess the extent to which their programs are consistent with these guidelines by determining the extent to which their programs meet each point shown below. Personnel in state departments of education and health also can use these criteria to monitor the extent to which schools in the state are providing effective health education about AIDS.

1. To what extent are parents, teachers, students, and appropriate community representatives involved in developing, implementing, and assessing AIDS education policies and programs?
2. To what extent is the program included as an important part of a more comprehensive school health education program?
3. To what extent is the program taught by regular classroom teachers in elementary grades and by qualified health education teachers or other similarly trained personnel in secondary grades?
4. To what extent is the program designed to help students acquire essential knowledge to prevent HIV infection at each appropriate grade?
5. To what extent does the program describe the benefits of abstinence for young people and mutually monogamous relationships within the context of marriage for adults?
6. To what extent is the program designed to help teenage students avoid specific types of behavior that increase the risk of becoming infected with HIV?
7. To what extent is adequate training about AIDS provided for school administrators, teachers, nurses, and counselors—especially those who teach about AIDS?
8. To what extent are sufficient program development time, classroom time, and educational materials provided for education about AIDS?
9. To what extent are the processes and outcomes of AIDS education being monitored and periodically assessed?

Estimates and Sampling Errors for Selected GAO Interview Responses

Variable	Estimated school districts (percent)	Sampling error[a] (± percentage points)
School districts requiring HIV education	66	6
School districts not requiring HIV education	27	6
School districts with grades 7-12 requiring HIV education at every grade level	5	4
School districts requiring HIV education in health courses	79	6
School districts with HIV teachers obtaining in-service training	88	5
HIV teachers receiving in-service training	83	11
School districts reporting the number of HIV teachers trained is:		
More than enough	9	5
About what is needed	64	8
Less than is needed	25	7
School districts reporting:		
They want to do more HIV in-service training	54	8
The amount of in-service already received is about right	43	8

[a]Sampling errors are computed at the 95-percent confidence level, i.e., we are 95-percent confident that the true proportion of school districts is between the ranges specified by the estimate.

CDC's Suggested KBB Questions for Students

AIDS is a very serious health problem in our Nation. Health officials are trying to find the best ways to teach people about AIDS and the human immunodeficiency virus (HIV), that causes AIDS. This survey has been developed so you can tell us what you know and how you feel about AIDS/HIV. The information you give will be used to develop better AIDS/HIV education programs for young people like yourself.

DO NOT write your name on this survey or the answer sheet. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really know, feel, or do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class.

The questions in Part 1 that ask about your background will only be used to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Place all your answer on the answer sheet. Fill in the circles completely. Make sure to answer every question. When you are finished, follow the instructions of the person giving you the survey, and place your answer sheet in the box or envelope provided for you.

You need to understand two related words used in this survey: AIDS and HIV.

- AIDS stands for acquired immunodeficiency syndrome.
- AIDS is caused by the virus, HIV.
- HIV stands for human immunodeficiency virus. HIV is the virus that causes AIDS.

THANK YOU VERY MUCH FOR YOUR HELP.

PART 1

Read each question carefully. Fill in the circle on your answer sheet that matches the letter of your answer.

1. What grade are you in?

   a. 9TH b. 10TH c. 11TH d. 12TH e. UNGRADED OR OTHER

2. What is your sex?

   a. FEMALE b. MALE

3. How old are you?

   a. 12 YEARS OLD OR YOUNGER
   b. 13-14 YEARS OLD
   c. 15-16 YEARS OLD
   d. 17-18 YEARS OLD
   e. 19 YEARS OLD OR OLDER

4. Are you Hispanic or Latino?

   a. YES b. NO

5. What is your race?

   a. BLACK
   b. WHITE
   c. AMERICAN INDIAN OR ALASKAN NATIVE
   d. ASIAN OR PACIFIC ISLANDER
   e. OTHER

PART 2

Read each question carefully. Fill in the circle on your answer sheet that matches the letter of your answer.

6. Should students your age be taught about AIDS/HIV infection in school?

   a. YES b. NO c. NOT SURE

7. Have you been taught about AIDS/HIV infection in school?

   a. YES b. NO c. NOT SURE

2

8. Should a student with AIDS/HIV infection be allowed to go to your school?

   a. YES b. NO c. NOT SURE

9. Would you be willing to be in the same class with a student with AIDS/HIV infection?

   a. YES b. NO c. NOT SURE

10. Do you know where to get good information about AIDS/HIV infection?

    a. YES b. NO c. NOT SURE

11. Do you know where to get tested to see if you are infected with the AIDS virus (HIV)?

    a. YES b. NO c. NOT SURE

12. Do you know how to keep from getting the AIDS virus (HIV)?

    a. YES b. NO c. NOT SURE

13. Have you ever talked about AIDS/HIV infection with a friend?

    a. YES b. NO

14. Have you ever talked about AIDS/HIV infection with your parents or other adults in your family?

    a. YES b. NO

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15. Can a person get AIDS/HIV infection from holding hands with someone?

    a. YES b. NO c. NOT SURE

16. Can a person get AIDS/HIV infection from sharing needles used to inject (shoot up) drugs?

    a. YES b. NO c. NOT SURE

3

17. Can a person get AIDS/HIV infection from being bitten by mosquitos or other insects?

a. YES b. NO c. NOT SURE

18. Can a person get AIDS/HIV infection from donating blood?

a. YES b. NO c. NOT SURE

19. Can a person get AIDS/HIV infection from having a blood test?

a. YES b. NO c. NOT SURE

20. Can a person get AIDS/HIV infection from using public toilets?

a. YES b. NO c. NOT SURE

21. Can a person get AIDS/HIV infection from having sexual intercourse without a condom (rubber)?

a. YES b. NO c. NOT SURE

22. Can a person get AIDS/HIV infection from being in the same class with a student who has AIDS/HIV infection?

a. YES b. NO c. NOT SURE

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23. Can you tell if people are infected with the AIDS virus (HIV) just by looking at them?

a. YES b. NO c. NOT SURE

24. Can a person who has the AIDS virus (HIV) infect someone else during sexual intercourse?

a. YES b. NO c. NOT SURE

25. Can a pregnant woman who has the AIDS virus (HIV) infect her unborn baby with the virus?

a. YES b. NO c. NOT SURE

4

26. Is there a cure for AIDS/HIV infection?

a. YES b. NO c. NOT SURE

27. Is it true that only homosexual (gay) men can get AIDS/HIV infection?

a. YES b. NO c. NOT SURE

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28. Can people reduce their chances of becoming infected with the AIDS virus (HIV) by not having any kind of sexual intercourse (being abstinent)?

a. YES b. NO c. NOT SURE

29. Can people reduce their chances of becoming infected with the AIDS virus (HIV) by using condoms (rubbers) during sexual intercourse?

a. YES b. NO c. NOT SURE

30. Can people reduce their chances of becoming infected with the AIDS virus (HIV) by not having any kind of sexual intercourse with a person who has injected (shot up) drugs?

a. YES b. NO c. NOT SURE

31. Can people reduce their chances of becoming infected with the AIDS virus (HIV) by taking birth control pills?

a. YES b. NO c. NOT SURE

PART 3

Read each question carefully. Fill in the circle on your answer sheet that matches the letter of you answer.

32. Have you ever injected (shot up) cocaine, heroin, or other illegal drugs into your body?

a. YES b. NO

33. In the last year, have you injected (shot up) cocaine, heroin, or other illegal drugs into your body?

a. YES b. NO

34. Have you ever shared needles used to inject (shoot up) any drugs?

a. YES b. NO

35. In the last year, have you shared needles used to inject (shoot up) any drugs?

a. YES b. NO

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36. With how many people have you had any kind of sexual intercourse in your life?

a. 0 b. 1 c. 2 d. 3 e. 4 OR MORE

37. With how many people have you had any kind of sexual intercourse in the last year?

a. 0 b. 1 c. 2 d. 3 e. 4 OR MORE

38. How old were you the first time you had any kind of sexual intercourse?

a. I HAVE NEVER HAD ANY KIND OF SEXUAL INTERCOURSE
b. 12 YEARS OLD OR YOUNGER
c. 13-14 YEARS OLD
d. 15-16 YEARS OLD
e. 17-18 YEARS OLD

39. When you have any kind of sexual intercourse, how often is a condom (rubber) used?

a. I HAVE NEVER HAD ANY KIND OF SEXUAL INTERCOURSE
b. ALWAYS
c. SOMETIMES
d. RARELY
e. NEVER

THANK YOU VERY MUCH FOR YOUR TIME AND HELP.

6

Topics Covered During In-Service Training by 13 CDC-Funded Districts

Training topics	Length of coverage (percentage of districts)[a] More than 15 min.	15 min. or less	Not at all	Don't know
How HIV is transmitted	100	0	0	0
Behaviors that put a person at risk for getting HIV	100	0	0	0
Unprotected heterosexual intercourse as a risky behavior	85	15	0	0
Unprotected homosexual intercourse as a risky behavior	85	15	0	0
Multiple sex partners as a risky behavior	69	31	0	0
IV drug use as a risky behavior	85	15	0	0
Importance of using condoms to prevent the spread of HIV	92	8	0	0
How blood and other bodily fluids should be handled for HIV infection control	85	8	8	0
How to handle embarrassing questions from students	85	15	0	0
How to raise students' self-esteem	85	15	0	0
How to teach students to resist peer pressure	92	8	0	0
How to communicate sensitive subjects to students	92	8	0	0
Legal and other policies related to AIDS that school districts should follow	69	31	0	0
Resources available in the community to deal with HIV issues	85	15	0	0

[a]Percentages may total to more than 100 due to rounding.

Topics Covered During In-Service Training by School Districts Nationwide

Training topics	Length of coverage (percentage of districts)[a,b] More than 15 min.	15 min. or less	Not at all	Don't know
How HIV is transmitted	85	8	0	7
Behaviors that put a person at risk for getting HIV	76	16	0	7
Unprotected heterosexual intercourse as a risky behavior	45	52	2	1
Unprotected homosexual intercourse as a risky behavior	38	59	2	2
Multiple sex partners as a risky behavior	39	59	1	2
IV drug use as a risky behavior	61	38	1	0
Importance of using condoms to prevent the spread of HIV	46	52	2	0
How blood and other bodily fluids should be handled for HIV infection control	55	35	1	9
How to handle embarrassing questions from students	55	30	6	9
How to raise students' self-esteem	46	33	10	11
How to teach students to resist peer pressure	60	27	6	7
How to communicate sensitive subjects to students	53	32	6	10
Legal and other policies related to AIDS that school districts should follow	40	43	7	10
Resources available in the community to deal with HIV issues	42	46	3	10

[a]Percentages may not total 100 due to rounding.

[b]Sampling errors for these percentages do not exceed 8 percentage points.

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